CURRICULUM VITAE

Assoc. Prof. Dr. Syamimi Saadon

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h-index: 13 (Scopus), 11 (Google Scholar)
Citations: 558 (Scopus), 665 (Google Scholar)

Education

1. PhD in Energy and Thermal, 2015, National Institute of Applied Science Lyon, France
2. Diplome d'Ingenieur (Master Degree) in Energy Engineering and Propulsion, 2010, National Institute of Applied Science Rouen, France
3. French Baccalaureate (A-Level), 2005, University Institute of Technology Angouleme, France
4. Sijil Pelajaran Malaysia (SPM), 2002, SMK Sultanah Asma, Alor Star, Kedah

Areas of Interest

1. Fire proof materials, thermal insulation materials
2. Waste heat recovery (ORC, Stirling engine)
3. Heat transfer, energy and exergy analysis
4. Gas turbine propulsion
5. Green and renewable energy

Professional Qualification/Membership/Affiliation

1. Member, Stichting (Foundation) Knowledge Center on Organic Rankine Cycle Technology (KCORC), October 2025 to date
2. Graduate Engineer, Board of Engineers Malaysia (BEM), (Membership No.: G1202913A)
3. Member, IKRAM Academia, April 2019 to date
4. Member, Aerospace Society Malaysia (AEROS) (Membership No.: AEROS00009), March 2017 to date
5. Member, Persatuan Saintis Muslim Malaysia (PERINTIS) (Membership No.: 236), June 2017 to date

Appointments

Position	Duration
1. Treasurer, AEROTECH IX 2026	September 2025 to date
2. Talent Volunteers under Task Force for Strategic Assessment and Duty Balance Study of Academic Employees, UPM	September 2025 to date
3. Associate Professor, Department of Aerospace Engineering,Faculty of Engineering, UPM	September 2025 to date
4. Committee Member, Persatuan Saintis Muslim Malaysia (PERINTIS)	2025 to 2027
5. Treasurer, AERO-SYMPOSIUM 2025	April 2025 to date
6. Treasurer, AEROS Conference 2025	February to December 2025
7. Coordinator, Master in Aerospace System Design Engineering (MASDE)	1st August 2021 to 30th September 2027

Updated 3rd November 2025

8.	Treasurer, Aerospace Society Malaysia (AEROS)	March 2024 to February 2027
9.	Treasurer, Alumni Hi-Tea 2024	September to December 2024
10.	Treasurer, SAWAE Conference 2024	February to August 2024
11.	Treasurer, AEROS Conference 2023	January to December 2023
12.	Secretary, AEROTECH VIII Conference 2022	November 2021 to December 2022
13.	Treasurer, AEROS Conference 2021	January to December 2021
14.	Committee Member, IKRAM Academia	February 2021 to February 2023
15.	Treasurer, Aerospace Society Malaysia (AEROS)	February 2021 to March 2024
16.	Head of Scientific Committee for International Symposium on Sustainable Aviation (ISSA 2020)	November 2019 to November 2020
17.	Committee Member, Persatuan Saintis Muslim Malaysia (PERINTIS)	2019 to 2021
18.	Academic Coordinator II, Department of Aerospace Engineering, Faculty of Engineering, UPM	April 2017 to July 2021
19.	Final Year Project Coordinator, Department of Aerospace Engineering, Faculty of Engineering, UPM	Semesters 1 and 2 2017/2018 Semesters 1 and 2 2018/2019
20.	Head of Protocol for International Conference on Computational Methods in Engineering and Health Sciences (ICCMEH 2019)	July 2018 to July 2019
21.	Programme Assessor Committee (PAC) for Diploma of Engineering Technology in Aeroplane Maintenance (UniKL-MIAT)	1st June 2017 to 31st May 2019
22.	Head of Logistic Committee, AEROTECH VII	June 2017 to August 2018
23.	Head of Promotion Committee, AEROTECH VI	November 2015 to November 2016
24.	Secretary, Master of Aerospace System Design Engineering Committee	August 2015 to August 2017
25.	Multimedia & ICT Committee Members	16 August 2015 to 3 April 2017
26.	Senior Lecturer, Department of Aerospace Engineering, Faculty of Engineering, UPM	August 2015 to August 2025
27.	Tutor, Department of Aerospace Engineering, Faculty of Engineering, UPM	July 2011 to August 2015

Publications

Journals

1. T.S. Balakrishnan, **S. Saadon,** T.S. Yeoh, S. Nayak, N. Mazlan. Fire Resistance and Thermal Performance of Sustainable Hybrid carbon/Flax Fibre Reinforced Aluminium Laminates with Silicon Carbide Filler for Aircraft Engine Fire-Designated Zones, *Journal of Natural Fibers*, Vol. 22(1), 2558216, **2025**. (*Scopus Indexed)* **(JCR Q1)**
2. M.F. Mohd Zulkeple, A.R. Abu Talib, E. Gires, **S. Saadon**, M.Y. Harmin, Rahimi L. Muhamud, Bastia Javier. Field evaluation of thermal behaviour of aerogel-infused paint for building insulation, *Pertanika Journal of Science and Technology*, Vol. 33(5), pp. 2339-2356, **2025.** *(Scopus Indexed)*
3. N.K.M.N.A. Rahman, **S. Saadon**, A.R. Abu Talib, E. Gires, H. Salleh, N. Abdellatif. Analysis of Stirling engine's performance in recovering waste heat from wood pellet, coconut husk and bagasse, *Journal of Thermal Science and Technology*, Vol. 20(1), pp. 24-00388, **2025.** *(Scopus Indexed)* **(JCR Q3)**
4. I.C. Chy Whye, **S. Saadon**. Thermodynamic Analysis of Air Cycle Machine for Aircraft Cabin Thermal Comfort at Different Flight Segments, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 57 (3), pp. 443-450, **2025.** *(Scopus Indexed)* **(JCR Q3)**
5. A.R. Abu Talib, M.F. Mohd Zulkeple, E. Gires, M.Y. Harmin, **S. Saadon**, Rahimi L. Muhamud, Bastia Javier. Effect of different aerogel percentage coating on thermal insulating performance, *Journal of Applied Science and Engineering*, Vol. 28(1), pp. 155-162, **2025.** *(Scopus Indexed)* **(JCR Q3)**
6. N.K.M.N.A. Rahman, **S. Saadon**,, R.E.S.R.M. Azhan Shah, A.R.A. Talib, E. Gires, H. Salleh, N. Abdellatif. Thermal Performance Study on Coconut Husk and Kenaf Fibre as Thermal Insulation Materials, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 117(1), pp. 60-70, **2024.** *(Scopus Indexed)*

7. M.S. Mohamad Shafiee, **S. Saadon**. Conceptual Design of Out-of-Roundness Test Equipment for Aircraft Wheels, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 56 (1S), pp. 291-298, **2024.** *(Scopus Indexed)* **(JCR Q3)**
8. M.F. Mohd Zulkeple, A.R. Abu Talib, M.Y. Harmin, **S. Saadon**, M.H. Azami, T. Yusaf. Numerical Investigation Of Heat Transfer Enhancement Via Dimpled Target Surface Configuration And Jet Arrangement In Impingement Cooling, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 56 (1S), pp. 93-106, **2024.** *(Scopus Indexed)* **(JCR Q3)**
9. M.F. Mohd Zulkeple, A.R. Abu Talib, M.Y. Harmin, **S. Saadon**, M.H. Azami, T. Yusaf. Comprehensive Analysis Of Geometric Hole Designs And Configurations In Film Cooling For Gas Turbine Engines: A Critical Review, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 56 (1S), pp. 187-218, **2024.** *(Scopus Indexed)* **(JCR Q3)**
10. Chong Vui San, M., Mohd Tohir, M.Z., Spearpoint, M., **Saadon, S**., Abu Talib, A.R. An assessment of recent thermal radiation model performance for propane gas fire experiments, *Journal of Fire Sciences*, Vol. 42(2), pp. 89–116, **2024**. (**JCR Q3, Impact Factor 1.696**)
11. Chong Vui San, M., Mohd Tohir, M.Z., **Saadon, S**., Abu Talib, A.R. Developing an enhanced thermal radiation model through a Semi-A priori approach, *International Journal of Thermal Sciences*, 197, 108784, **2024**. (**JCR Q1, Impact Factor 4.779**)
12. I.C. Chy Whye, **S. Saadon**. Performance Analysis of Heat Recovery System for a Turbofan Engine Using Intercooler and Recuperator via Aspen Plus, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 55 (3), pp. 359-366, **2023.** *(Scopus Indexed)*
13. N.K.M. Nik Abdul Rahman, **S. Saadon**, M.H. Che Man. Heat Transfer Enhancement of Biomass Based Stirling Engine, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 100 (1), pp. 1-10, **2022.** *(Scopus Indexed)*
14. C.Z. Ken, **S. Saadon**. Analysis of Recuperation Supercritical Carbon Dioxide Cycle for Heat Recovery of an Aircraft Engine, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 96 (2), pp. 1-9, **2022.** *(Scopus Indexed)*
15. C.Z. Ken, **S. Saadon**. Parametric Study of Supercritical Carbon Dioxide (sCO2) Cycles for Waste Heat Recovery from Jet Engines, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 54 (3), pp. 287-296, **2022.** *(Scopus Indexed)*
16. C.Z. Ken, **S. Saadon**. Performance analysis of supercritical carbon dioxide-Brayton cycle for waste heat recovery using Aspen Plus, *Journal of Advanced Research in Applied Mechanics*, Vol. 93 (1), pp. 8-12, **2022.** *(MYCITE Indexed)*
17. N.K.M. Nik Abdul Rahman, **S. Saadon**, M.H. Che Man. Waste heat recovery of biomass based industrial boilers by using Stirling engine, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 89 (1), pp. 1-12, **2022.** *(Scopus Indexed)*
18. T. Kumaravelu, **S.Saadon**, A.R. Abu Talib. Heat transfer enhancement of a Stirling engine by using fins attachment in an energy recovery system, *Energy*, Vol. 239, 121881, **2022. (JCR Q1, Top 10%, Impact Factor 7.147)**
19. N.K.M. Nik Abdul Rahman, **S. Saadon**, M.H. Che Man. Waste heat recovery of biomass based industrial boilers by using Stirling engine, *Journal of Advanced Research in Applied Mechanics*, Vol. 81 (1), pp. 8-12, **2021.** *(MYCITE Indexed)*
20. **S. Saadon.** Organic Rankine Cycle (ORC) as waste heat recovery system for micro-cogeneration: A preliminary study, *Journal of Physics: Conference Series*, 2053, 012019, **2021**. *(Scopus Indexed)*
21. Md. J. Hossain, J.I. Chowdury, N. Balta-Ozkan, F. Asfand**, S. Saadon,** M. Imran. Design optimization of supercritical carbon dioxide (s-CO2) cycles for waste heat recovery from marine engines, *Journal of Energy Resources Technology*, JERT-20-2000, **2021**. **(JCR Q3, Impact Factor 2.759)**
22. **S. Saadon**, N.A.M. Nasir. Performance and sustainability analysis of an Organic Rankine Cycle system in subcritical and supercritical conditions for waste heat recovery, *Energies*, Vol. 13, Issue 12, 3035, **2020**. **(JCR Q3, Impact Factor 2.707)**
23. Y.S.M. Al Tarazi, A.R. Abu Talib, **S. Saadon,** J. Yu, E. Gires, M.F.A. Ghafir, J. Lucas. On-Design Operation and Performance Characteristics of Custom Engine, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, 70 (1), pp. 144-154, **2020**. *(Scopus Indexed)*
24. **S. Saadon**, L. Gaillard, S. Giroux, C. Menezo. Exergy, exergoeconomic and enviroeconomic analysis of a building integrated semi-transparent photovoltaic/thermal (BISTPV/T) by natural ventilation, *Renewable Energy*, Vol. 150, pp. 981-989, **2020**. (**JCR Q1, Impact Factor 5.439**)

25. S. Salman, A.R. Abu Talib, **S. Saadon,** M.T.H. Sultan. Hybrid nanofluid flow and heat transfer over backward and forward steps: A review, *Powder Technology*, Vol. 363, pp. 448-472, **2020**. (**JCR Q1, Impact Factor 3.413**)
26. S.M.S. Islam, **S. Saadon**. Performance Analysis of Supercritical Organic Rankine Cycle System with Different Heat Exchangers Design Configuration, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 65 (2), pp. 324-333, **2020**. *(Scopus Indexed)*
27. N.H.H. Zainol Abidin, **S. Saadon**. An Outlook for Waste Heat Recovery Concept for Aircraft Engine Using Organic Rankine Cycle, *Journal of Aeronautics, Astronautics and Aviation*, Vol. 52 (1), pp. 95-103, **2020**. *(Scopus Indexed)*
28. S.M.S. Islam, **S. Saadon**. Organic Rankine Cycle as waste heat recovery: a review of their potential applications, *Perintis eJournal*, Vol. 9 (2), pp. 21-36, **2019.** *(Google Scholar Indexed)*
29. H. Helman, **S. Saadon,** Design and Modelling of a Beta-Type Stirling Engine for Waste Heat Recovery, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 64 (1), pp. 135-142, **2019**. *(Scopus Indexed)*
30. N.A.M. Rasli, **S. Saadon,** CFD Analysis of Heat Transfer Through Stirling Engine with Different Regenerators, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 64 (1), pp. 126-134, **2019**. *(Scopus Indexed)*
31. **S. Saadon,** N.A. Mohd Nasir. Modelling and thermal analysis of organic Rankine Cycle with superheater and preheater, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol. 55 (2), pp. 142-149, **2019**. *(Scopus Indexed)*
32. S. Salman, A.R. Abu Talib, A. Hilo, S.R. Nafwa, M.T.H. Sultan, **S. Saadon**. Numerical study on the turbulent mixed convective heat transfer over 2d microscale backward-facing step, *CFD Letters*, Vol. 11 (10), pp. 31-45, **2019**. *(Scopus Indexed)*
33. I. Mohammed, A.R. Abu Talib, M.T.H. Sultan, M. Jawaid, A.H. Ariffin, **S. Saadon**. Mechanical properties of fibre-metal laminates made of natural/synthetic fibre composites, *BioResources*, Vol. 13 (1), pp. 2022-2034, **2018**. (**JCR Q1, Impact Factor 1.396**)
34. N.A. Mohd Nasir, **S. Saadon**. Performance analysis of an Organic Rankine Cycle system with superheater utilizing exhaust gas of a turbofan engine, *International Journal of Engineering and Technology*, Vol. 7, pp. 120-124, **2018**. *(Scopus Indexed)*
35. I. Mohammed, A.R. Abu Talib, M.T.H. Sultan, **S. Saadon**. Fire behavioural and mechanical properties of carbon fibre reinforced aluminium laminate composites for aero-engine, *International Journal of Engineering and Technology*, Vol. 7, pp. 22-27, **2018**. *(Scopus Indexed)*
36. **S. Saadon**, L. Gaillard, S. Giroux, C. Menezo. Simulation study of a naturally ventilated building integrated photovoltaic-thermal (BIPV/T) envelope, *Renewable Energy*, Vol. 87, pp. 517-531, **2016**. (**JCR Q1, Impact Factor 3.404**)
37. **S. Saadon**, L. Gaillard, S. Giroux, C. Menezo. Simulation study of a naturally ventilated building integrated photovoltaic (BIPV) envelope, *Energy Procedia*, Vol. 78, pp. 2004-2009, **2015**. *(Scopus Indexed)*
38. L. Gaillard, G. Ruedin, S. Giroux, M. Plantevit, M. Kaytoue, **S. Saadon**, C. Menezo, J. Boulicaut. Data-driven performance evaluation of ventilated photovoltaic double-skin facades in the built environment, *Energy Procedia*, Vol. 78, pp. 447-452, **2015**. *(Scopus Indexed)*

Conference Proceedings

1. T.S. Yeoh, **S. Saadon**, N. Mazlan. Fire properties test on fibre metal laminate based on carbon/flax fibre composites reinforced with silicon carbide for aircraft engine fire-designated zones, *IOP Conf. Series: Earth and Environmental Science,* 1500(1), 012043, **2025.** *(Scopus Indexed)*
2. R.E.S.R.M. Azhan Shah, **S. Saadon**, N.K.M.N.A. Rahman, N. Abdellatif. Development of thermal insulation material using coconut and kenaf fiber for heat recovery enhancement, *IOP Conf. Series: Earth and Environmental Science,* 1372, 012070, **2024.** *(Scopus Indexed)*
3. I.C. Chy Whye, **S. Saadon**. Performance Analysis of Heat Recovery System for a Turbofan Engine Using Intercooler and Recuperator via Aspen Plus, *E3S Web of Conferences*, 477, 00018, AEROTECH VIII Conference, **2024.** *(Scopus Indexed)*
4. I.C. Chy Whye, **S. Saadon**. Simulation study of heat recovery system for a turbofan with intercooler and recuperator, *Proceedings of Aerospace Society Malaysia*, Vol. 1 (1), pp. 1-6, **2023.**

5. T. Kumaravelu, **S. Saadon.** External heat transfer enhancement of a beta-type Stirling engine with fins as regenerator, *E3S Web of Conferences,* 313, 12001, 19° International Stirling Engine Conference, **2021.** *(Scopus Indexed)*
6. **S. Saadon**. Possibility of Using Stirling Engine as Waste Heat Recovery–Preliminary Concept, *IOP Conference Series: Earth and Environmental Science*, Vol. 268 (1), 012095, **2019**. *(Scopus Indexed)*
7. N.H.H. Zainol Abidin, **S. Saadon**. Parametric optimization and performance analysis of a waste heat recovery system using Organic Rankine Cycle (ORC), I*OP Conference Series: Materials Science and Engineering*, Vol. 405 (1), 012010, **2018**. *(Scopus Indexed)*
8. **S. Saadon**. Computational modelling of an Organic Rankine Cycle (ORC) waste heat recovery system for an aircraft engine, *MATEC Web of Conferences*, Vol. 151, **2018**. *(Scopus Indexed)*
9. **S. Saadon**, M S Mohd Redzuan. Sustainability assessment of turbofan engine with mixed exhaust through exergetic approach, I*OP Conference Series: Materials Science and Engineering*, Vol. 270 (1), 012012, **2017**. *(Scopus Indexed)*
10. I. Mohammed, A.R. Abu Talib, M.T.H. Sultan, **S. Saadon**. Ballistic impact velocity response of carbon fibre reinforced aluminium alloy laminates for aero-engine, *IOP Conference Series: Materials Science and Engineering*, Vol. 270 (1), 012026, **2017**. *(Scopus Indexed)*
11. **S. Saadon**, A.R. Abu Talib. An analytical study on the performance of the Organic Rankine cycle for turbofan engine exhaust heat recovery, *IOP Conference Series: Materials Science and Engineering*, Vol. 152 (1), 012011, **2016**. *(Scopus Indexed)*
12. I. Mohammed, A.R. Abu Talib, M.T.H. Sultan, **S. Saadon**. Temperature and heat flux measurement techniques for aero-engine fire test: a review, *IOP Conference Series: Materials Science and Engineering*, Vol. 152, 012036, **2016**. *(Scopus Indexed)*
13. **S. Saadon**, L. Gaillard, S. Giroux, C. Menezo. Modélisation et simulation thermique d'un bâtiment équipé d'une façade double-peau photovoltaïque naturellement ventilée, Congres Francais de Thermique, **2015**.
14. **S. Saadon**, L. Gaillard, S. Giroux, C. Menezo. Etude de simulation d'une enveloppe photovoltaïque intégrée au bâtiment (PVIB) naturellement ventilée, XII ème Colloque Interuniversitaire Franco-Québécois sur la Thermique des Systèmes - CIFQ 2015, Sherbrooke, Québec, Canada, **2015**.
15. **S. Saadon**, L. Gaillard, C. Menezo. Modélisation et simulation thermique d'un bâtiment équipé d'une façade photovoltaïque ventilée, 3ème Colloque International Francophone d'Energétique et de Mécanique-CIFEM, **2014**.
16. **S. Saadon,** C. Menezo. Study of a naturally-ventilated building integrated photovoltaic envelope, International Conference on Clean Technology for Smart Cities and Buildings from nano to urban scale - CISBAT, Lausanne, Switzerland, **2013**.
17. **S. Saadon,** L. Gaillard, C. Menezo. Modelling of a Ventilated PV Double-Skin Façade, CLIMA 2013 Congress, Prague, Czech Republic, **2013.**
18. **S. Saadon,** L. Gaillard, S. Giroux, H. Pabiou, C. Menezo. Modélisation d'une double-peau photovoltaïque ventilé, Congrès Français de Thermique, Gérardmer, France, pp.128, **2013.**

Book Chapters

1. Mujahidah, N.K., **Saadon, S.** Heat Transfer Enhancement of Biomass-Based Stirling Engine. In: Sogut, M.Z., Karakoc, T.H., Secgin, O., Dalkiran, A. (eds) *Proceedings of the 2022 International Symposium on Energy Management and Sustainability. ISEMAS 2022*. Springer Proceedings in Energy. Springer, Cham, pp. 491–497, **2023**.
2. **S. Saadon.** Croissant jadi cekodok, *Menara Akademia: Gading Mana Yang Tak Retak*, Persatuan Akademia IKRAM Malaysia, **2022**.
3. **S. Saadon**, S.M.S. Islam. A recent review in performance of Organic Rankine Cycle, *Organic Rankine Cycles for Waste Heat Recovery Application - Analysis and Applications*, IntechOpen, **May 13th 2020**. *(Google Scholar Indexed)*

Research Grants

No	Project Title	Amount	Year	Source of Fund
1	Investigation of flame retardant properties and combustion species in compartment fire scenarios of an aircraft engine insulated with natural fiber coated with aerogel (Project Leader)	RM 20,000	August 2024 - July 2026	GP-IPS (UPM)
2	Investigation of flame retardant properties and combustion species in compartment fire scenarios of an aircraft engine insulated with natural fiber coated with aerogel (Project Leader)	RM 40,000	June 2024- May 2026	The Weststar Aviation Group (Private-Industry)
3	2023 Researcher Mobility and Networking Programme NCKU, Taiwan (Project Leader)	RM 3000	Dec 2023-June 2024	National Cheng Kung University (NCKU) Overseas Hub in Malaysia (International)
4	Enhancing of Stirling Engine for Biomass Waste - To - Energy Production Using Bio-Inspired Material (Project Leader)	RM 25,000	October 2022 - March 2025	Matching Grant (UPM)
5	Insentif Pemerkasaan Penerbitan Jurnal Tahun 2021 (Project Leader)	RM 10,000	Aug 2022 - July 2023	UPM
6	Wanita Akademia: Perspektif dan Cabaran (Project Leader)	RM 7,500	Jan - Dec 2022	Persatuan Akademia IKRAM Malaysia (Private-NGO)
7	Development of AERO+ISO GARDE: An Ecological Aerogel-based Thermal Insulating Coating for Industrial Applications (Team Member)	RM 500,000	Dec 2021- Nov 2023	MyPAIR (National-MOHE)
8	Insentif Pemerkasaan Penerbitan Jurnal Tahun 2020 (Project Leader)	RM 2,105	2021	UPM
9	Project Skybelt: Enhancement of engineering skills of students of all levels for application of evidence based sustainable renewable energy solutions in the built environment (Team Member)	110,451 (Euro)	Nov 2019- Oct 2023	Erasmus + Programme of the European Union (International)
10	The effect of heat transfer enhancement in tubular heater of Stirling engine for waste heat recovery with different materials and fins attachments (Project Leader)	RM 118,000	Jan 2019- Sept 2022	Fundamental Research Grant Scheme (National-FRGS)
11	Thermodynamic and economic performance optimization of an organic Rankine cycle system using	RM 50,000	Oct 2016– June 2019	GP-IPM (UPM)

	exhaust heat of a jet engine core (Project Leader)			

Intellectual Property - Copyright

No	Project Title	Category	Year	Patent Number
1	Subcritical Organic Rankine Cycle with preheater for turbofan engine (Source code) (Project Leader)	Software	2025	LY2025W00569
2	Subcritical Organic Rankine Cycle with superheater for turbofan engine (Source code) (Project Leader)	Software	2024	LY2024W07410
3	Modul STEM-AeroCatapult (Peluncur Elastik) (Project Leader)	Literary Work	2024	LY2024W07409
4	Development of Beta-Type Stirling Engine for Low-Temperature Heat Recovery (Project Leader)	Artistic Work	2024	AR2024W09260
5	Waste Heat Recovery - Utilize All Available Energy (Project Leader)	Literary Work	2024	LY2024W08892

Awards / Recognitions

No	Name of Awards / Recognition	Title	Award Authority	Award Type	Year
1	Engineering Innovation & Exhibition 2025	Gold Award (AEROCASM: A fireproof composite for aircraft fire-designated zones)	Universiti Putra Malaysia	University	2025
2	Anugerah Penyelidik Cemerlang 2025	Geran Penyelidikan (Kategori Pensyarah Kanan)	Universiti Putra Malaysia	University	2025
2	PERINTIS Publication Award 2025	Heat transfer enhancement of a Stirling engine by using fins attachment in an energy recovery system	Persatuan Saintis Muslim Malaysia (PERINTIS)	National	2025
3	i-PICTL 2025	Silver Award	Universiti Putra Malaysia	Internation al	2025
4	PERINTIS Publication Award 2024	Exergy, exergoeconomic and enviroeconomic analysis of a building integrated semi-transparent photovoltaic/thermal (BISTPV/T) by natural ventilation	Persatuan Saintis Muslim Malaysia (PERINTIS)	National	2024
5	FYP Open Day	Silver Award (Analysis of Fibre Metal Laminate (FML) Based on	Universiti Putra Malaysia	University	2024

		Synthetic/Natural Fibre Composites Reinforced with Silicon Carbide for Aircraft Engine Fire-Designated Zone)			
6	i-PICTL 2023	Bronze Award	Universiti Putra Malaysia	International	2023
7	Engineering Innovation & Exhibition 2023	Silver Award (Development of Aero+IsoGarde: An Ecological Thermal Insulating Coating for Industrial Application)	Universiti Putra Malaysia	University	2023
8	FYP Open Day	Silver Award (Thermal Performance Study on Kenaf and Coconut Husk Fibers as Thermal Insulator Materials)	Universiti Putra Malaysia	University	2023
9	i-PICTL 2022	Silver Award	Universiti Putra Malaysia	International	2022
10	PERINTIS Publication Award 2022	Hybrid nanofluid flow and heat transfer over backward and forward steps: A review	Persatuan Saintis Muslim Malaysia (PERINTIS)	National	2022
11	Invited Speaker	Waste Heat Recovery	International Symposium on Energy Management and Sustainability (ISEMAS) 2022	International	2022
12	Anugerah Pencapaian	Excellent Service Award 2020	Universiti Putra Malaysia	Universiti	2021
13	FYP Open Day	Silver Award (Parametric study of Supercritical CO_2 for waste heat recovery from jet engine)	Universiti Putra Malaysia	University	2021
14	PERINTIS Publication Award 2021	Simulation study of a naturally-ventilated building integrated photovoltaic/thermal (BIPV/T) envelope	Persatuan Saintis Muslim Malaysia (PERINTIS)	National	2021
15	FYP Open Day	Silver Award (A Novel Enhanced-Power Stirling Engine Using Fins Attachment for Future Sustainable Energy)	Universiti Putra Malaysia	University	2020
16	Global I-Lead STEM Camp	Silver Award (Elastic Glider)	Persatuan Guru STEM Malaysia	National	2019

17	Global I-Lead STEM Camp	Bronze Award (Sugar Rocket Propulsion)	Persatuan Guru STEM Malaysia	National	2018
18	Best Paper Award	Thermal properties of HL002-TA/B epoxy resin/hardener in fibre metal laminates composites for aero-engine (Co-researcher)	International Conference on Aeronautics, Astronautics & Aviation (ICAAA 2018)	International	2018
19	Best Paper Award	Sustainability assessment of turbofan engine with mixed exhaust through exergetic approach (Main Researcher)	Aerospace Society Malaysia (AEROS) Conference 2017	International	2017
20	FYP Open Day	Bronze Award (Exergy Analysis of Two-Spool Turbofan Engine with Mixed Exhaust)	Universiti Putra Malaysia	University	2017

Journal Reviewer

No	Journal Title	Publisher	Level	Year
1	Energy and Built Environment	Elsevier	International	2025
2	Alexandria Engineering Journal (Q1 Journal)	Elsevier	International	2025
3	Applied Thermal Engineering (Q1 Journal)	Elsevier	International	2025
4	Engineering Applications of Computational Fluid Mechanics (Q1 Journal)	Elsevier	International	2025
5	Process Safety and Environmental Protection (Q1 Journal)	Elsevier	International	2024
6	Energy (Q1 Journal)	Elsevier	International	2024
7	Renewable Energy (Q1 Journal)	Elsevier	International	2023
8	Energy (Q1 Journal)	Elsevier	International	2023
9	Journal of Energy Storage	Elsevier	International	2023
10	Energy (Q1 Journal)	Elsevier	International	2022
11	Numerical Heat Transfer, Part B: Fundamentals	Taylors & Francis Online	International	2022

12	Journal of Mechanical Engineering	Institut Pengurusan Penyelidikan (RMI), Universiti Teknologi MARA	National	2022
13	Energy (Q1 Journal)	Elsevier	International	2022
14	Renewable Energy (Q1 Journal)	Elsevier	International	2021
15	Energy (Q1 Journal)	Elsevier	International	2021
16	Energy (Q1 Journal)	Elsevier	International	2021
17	Aircraft Engineering and Aerospace Technology	Emerald Publishing Limited	International	2021
18	Journal of Thermal Analysis and Calorimetry	Springer	International	2021
19	SAE International Journal of Aerospace	Society of Automotive Engineers	International	2020
20	International Journal of Energy Research (Q1 Journal)	John Wiley & Sons Ltd	International	2020
21	Energy (Q1 Journal)	Elsevier	International	2020
22	Renewable Energy (Q1 Journal)	Elsevier	International	2020
23	International Journal of Sustainable Aviation	Inderscience Publisher	International	2020
24	Journal of Engineering Science and Technology	Taylor's University	National	2019
25	IEEE Access	Institute of Electrical and Electronics Engineers	International	2019
26	Journal of Engineering Science and Technology	Taylor's University	National	2017

Consultation Services and Capacity Building	
1.	Professional Service to Community - STEM Aeroangkasa: (Rubber Plane Glider) with Pusat Sains Kreativiti Terengganu, Aug - Oct 2025.
2.	Facilitator, STEM @ Nilai Impian, 24 September 2025, SMK Nilai Impian at Masjid Abu Al-Darda', Nilai, Negeri Sembilan.
3.	Professional Service to Community - STEM Aeroangkasa: STEM for Sustainability (*STEM4S*) (10th-12th June 2025) with Sri Ayesha Islamic School at Taman Eko Rimba, Kuala Lumpur
4.	Professional Service to Community - Kem Ulul Albab (*AeroDescent Challenge*) (20th December 2023) with Pertubuhan IKRAM Kawasan Kajang
5.	Facilitator - *Teens Stargazing* (23rd-24th February 2023) at Surau Al-Amin, Alam Sari, Bangi
6.	Invited Speaker - Program PERINTIS Innocreate School Holiday Talk (14-15 September 2021) with PERINTIS
7.	Invited Speaker - EduTalk Al-Amin Oasis (18 November 2020) with PERINTIS
8.	Invited Speaker - Minggu Sains & Matematik at SRI Al-Amin Bangi (20-21 Julai 2020)
9.	Outreach to School Programme (Masyarakat Orang Asli), SK Bukit Tampoi, Dengki, Selangor - *Sugar Rocket* (30th Oct 2019)
10.	Outreach to School Programme (Masyarakat Orang Asli), SK Buluh Nipis, Muadzam Shah, Pahang - *Water Rocket* (16th May 2018 - 31st August 2018)
11.	Facilitator - Jelajah Minda Sains Gemilang (29th August 2018)

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
1.	Junaid Ramzan	Simulation Solar-driven Desiccant Dehumidification System for Climate-resilient Greenhouse Farming in Tropical Regions: A Simulation-based Approach Using Design-Builder	On-going
2.	Izadi Mahdi	Development of a Non-destructive Method for Measuring the Properties of Multiphase Fluid Flow in Industrial Large-Diameter Pipes by a Combination of CFD and Monte Carlo Simulation Methods, with NDT Techniques using Artificial Neural Networks and Machine Learning	On-going
3.	Nik Kechik Mujahidah Nik Abdul Rahman	The effect of heat transfer enhancement in tubular heater of Stirling engine for waste heat recovery with different materials and fins attachments	Graduated 2025

PhD (Co-Supervisor)

No.	Name	Title	Status
1.	Michael Chong Vui San	Assessment of thermal radiation models performance on propane gas fire experiments	Graduated 2025
2.	Muhammad Fitri Mohd Zulkeple	Cooling Enhancement on Gas Turbine Engine Combustion Chamber Liner	On-going
3.	Albuhamdan Sadeq Salman Abed	Heat Transfer and Fluid Flow over Microscale Backward / Forward Facing Step utilizing Hybrid Nanofluid	Graduated 2021
4.	Ibrahim Mohammed	Analysis of Fibre Metal Laminate (FML) Based on Carbon Fibre Hybrid Composites for Aero-Engine Applications	Graduated 2018

MSc with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Nur Amalina Omar	Investigation of flame retardant properties and combustion species in compartment fire scenarios of an aircraft engine insulated with natural fiber coated with aerogel	On-going
2.	Nur Athirah Mohd Nasir	Thermodynamic and Sustainability Analysis of an Organic Rankine Cycle System for Turbofan Engine	Graduated 2021

MSc coursework (Main Supervisor)

No.	Name	Title	Status
1.	Zhao Jialiang	Investigation of the effects of effusion and film cooling in a combustor for a gas turbine engine	Graduated 2025
2.	Ivan Chua Chi Whye	Thermodynamic analysis of air cycle machine for a turbofan engine	Graduated 2024
3.	Mohd Sulhi Bin Mohamad Shafiee	Roundness test equipment for aircraft wheel	Graduated 2023
4.	Hassan Shafeeq	A block based coding kit to teach younger children coding and conditioning	Graduated 2021
5.	Harlinda Helman	CFD Modelling of a Stirling Engine Gas Stove for Heat Recovery	Graduated 2019

Bachelor (Main Supervisor)

No.	Name	Title	Status

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1.	Goh Shu Hern	Combustion analysis of carbon fibre metal laminate composites reinforced with silicon carbide for aircraft engine fire-designated zones	Graduated 2025
2.	Krishna A/L Sivalingam	Investigation of Fire Retardant Properties in Compartment Fire Scenarios of an Aircraft Engine Insulated with Synthetic Fiber Reinforced Aerogel	Graduated 2025
3.	Miza Shazwina Saharom	Simulation Study on Comparison Between Vapor Compression-Refrigeration Cycle and Air Cycle Machine for Aircraft Applications	Graduated 2024
4.	Yeoh Thian Shen	Analysis of Fibre Metal Laminate (FML) Based on Synthetic/Natural Fibre Composites Reinforced with Silicon Carbide for Aircraft Engine Fire-Designated Zone	Graduated 2024
5.	Amien Faiq Dzul Fahmey	Study on the performance of a small-scale scroll expander for low temperature heat recovery in organic Rankine cycle	Graduated 2023
6.	Raja Eizzuddin Shah Raja Muhammad Azhan Shah	Thermal Performance Study on Kenaf and Coconut Husk Fibers as Thermal Insulator Materials	Graduated 2023
7.	Ivan Chua Chi Whye	Simulation study of heat recovery system for a turbofan engine using intercooler and recuperator	Graduated 2022
8.	Nurul Ain Izzati Zulkifli	Experimental study of natural fibers a thermal insulator of Stirling engine wall for waste heat recovery	Graduated 2022
9.	Yousef Abdulla Saleh	Stirling engine as waste heat recovery for aircraft application	Graduated 2022
10.	Chong Zhi Ken	Parametric study of supercritical carbon dioxide (s-CO2) cycles for waste heat recovery from jet engines	Graduated 2021
11.	Muhamad Irsyaduddin Abd Gahani	Numerical Study on Rocket Stove Combustion Process for Heating Stirling Engine	Graduated 2021
12.	Thavamalar Kumaravelu	A Novel Enhanced-Power Stirling Engine Using Fins Attachment for Future Sustainable Energy	Graduated 2020
13.	Salmah Md Saiful Islam	Modelling and Thermal Analysis of a Supercritical Organic Rankine Cycle System with Different Heat Exchangers Configuration	Graduated 2019
14.	Nur Amanina Mohamad Rasli	Effects of Heat Transfer Enhancement in Stirling Engine with Different Porosity and Regenerator Materials	Graduated 2019
15.	Muhammad Nor Asyraf Mohd Isa	Sustainability assessment of turbofan engine integrated with ORC through exergetic approach	Graduated 2018
16.	Nurul Huda Husna Zainol Abidin	Thermodynamic analysis and performance optimization of an Organic Rankine Cycle (ORC) waste heat recovery system for an aircraft engine	Graduated 2018
17.	Nur Hazwani Binti Isham	Modelling of Organic Rankine Cycle with a Turbofan Engine for Exhaust Heat Recovery	Graduated 2018
18.	Muhamad Syukri Bin Mohd Redzuan	Energy and Exergy Analysis of Turbofan Engine	Graduated 2017
19.	Norimah Binti Zakaria	Analytical Model of Shock Wave Structure in Over Expanded Supersonic Flow	Graduated 2016

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Teaching Experiences				
No.	**Course**	**Level**	**Course code**	**Semester**
1.	Air Breathing Engine	Undergraduates	EAS 4501	2015/2016
2.	Aerothermodynamics	Undergraduates	EAS 3511	2015/2016
3.	Aerospace Laboratory III (Propulsion)	Undergraduates	EAS 3923	2015/2016
4.	Propulsion	Undergraduates	EAS 3503	2016/2017
5.	Aerothermodynamics	Undergraduates	EAS 3511	2017/2018
6.	Propulsion	Undergraduates	EAS 3503	2017/2018
7.	Final Year Project	Undergraduates	EAS 4999A/4999B	2017/2018
8.	Aerodynamics II	Undergraduates	EAS 3204	2017/2018
9.	Aerothermodynamics	Undergraduates	EAS3521	2018/2019
10.	Propulsion	Undergraduates	EAS3513	2018/2019
12.	Final Year Project	Undergraduates	EAS 4999A/4999B	2018/2019
11.	Engineering Mathematics I	Undergraduates	ECC3011	2019/2020
12.	Air Breathing Engine	Undergraduates	EAS4511	2019/2020
13.	Numerical Analysis for Engineering Applications	Undergraduates	EAS3122	2019/2020
14.	Aerospace Laboratory II (Thermofluid)	Undergraduates	EAS3932	2019/2020
15.	Numerical Analysis for Engineering Applications	Undergraduates	EAS3122	2020/2021
16.	Aerospace Laboratory II (Thermofluid)	Undergraduates	EAS3932	2020/2021
17.	Propulsion	Undergraduates	EAS3513	2020/2021
18.	Aerothermodynamics	Undergraduates	EAS3521	2021/2022
19.	Special Topics (Renewable Energy Technologies)	Postgraduates	EAS5955	2021/2022
20.	Aircraft Propulsion	Postgraduates	EAS5502	2021/2022
21.	Numerical Analysis for Engineering Applications	Undergraduates	EAS3122	2021/2022
22.	Independent Study	Postgraduates	EAS5977	2021/2022
23.	Dissertation (Master of Aerospace System Engineering Design)	Postgraduates	EAS5990	2021/2022
24.	Thermodynamics I	Undergraduates	EMM3226	2022/2023
25.	Aerothermodynamics	Undergraduates	EAS3521	2022/2023
26.	Aerospace Laboratory III (Propulsion)	Undergraduates	EAS3933	2022/2023
27.	Numerical Analysis for Engineering Applications	Undergraduates	EAS3122	2022/2023
28.	Dissertation (Master in Aerospace System Engineering Design)	Postgraduates	EAS5990	2022/2023
29.	Thermodynamics I	Undergraduates	EMM3226	2023/2024
30.	Aircraft Propulsion	Postgraduates	EAS5502	2023/2024
31.	Air Breathing Engine	Undergraduates	EAS4511	2023/2024
32.	Aerodynamics II	Undergraduates	EAS3224	2023/2024
33.	Thermodynamics I	Undergraduates	EMM3226	2024/2025
34.	Aircraft Propulsion	Postgraduates	EAS5502	2024/2025
35.	Engineering Mathematics II	Undergraduates	ENG3002	2024/2025
36.	Thermodynamics I	Undergraduates	EMM3226	2025/2026
37.	Aircraft Propulsion	Postgraduates	EAS5502	2025/2026

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